

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
7 July 2005 (07.07.2005)

PCT

(10) International Publication Number
WO 2005/061189 A1

(51) International Patent Classification⁷: **B25J 17/02**,
19/00

Margareta (heiress of the deceased inventor) [SE/SE];
Vårdkasevägen 4, S-723 53 Västerås (SE).

(21) International Application Number:
PCT/SE2004/002004

(74) Agent: **ABB AB**; Legal & Compliance/Intellectual Prop-
erty, S-721 78 Västerås (SE).

(22) International Filing Date:
22 December 2004 (22.12.2004)

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

(25) Filing Language:
Swedish

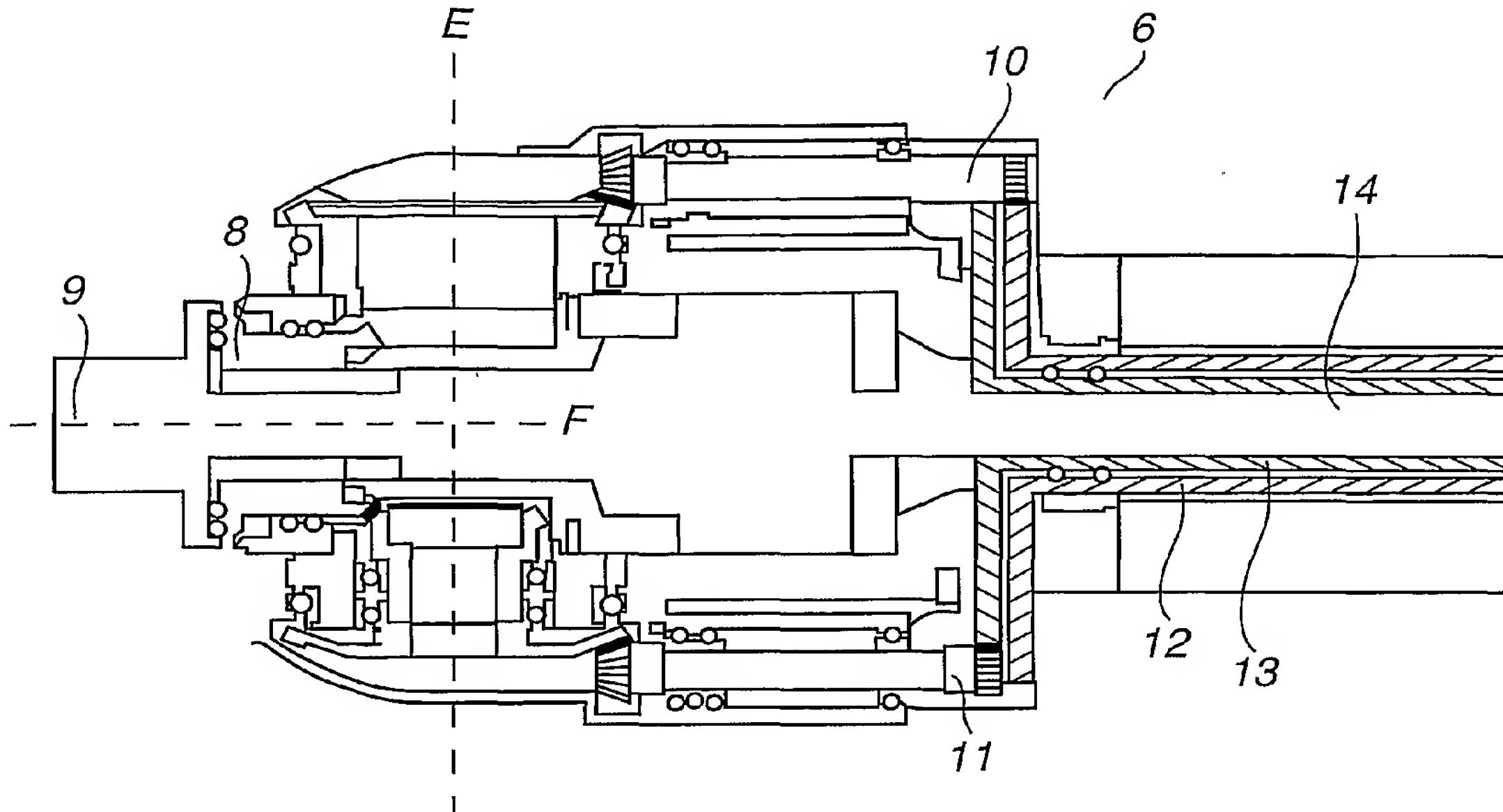
(26) Publication Language:
English

(30) Priority Data:
0303539-1 22 December 2003 (22.12.2003) SE

(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO,

[Continued on next page]

(54) Title: A WRIST UNIT TO A ROBOT ARM



(57) Abstract: A wrist unit to be arranged in an industrial robot comprising a control system and a manipulator. The manipulator includes a robot arm (5) and a wrist unit (6) arranged on the robot arm and comprising a wrist housing (7) arranged for rotation about a fourth axis of rotation (D), a wrist part/tilt (8, 33) pivotally journaled in the wrist housing for rotation about a fifth axis of rotation (E). A second transmission (11) is configured to transmit rotation from a second drive unit (31) to the turn disc (9) about the sixth axis of rotation (F) where the control system (1a) controls the first (30) and second (31) drive units. The object of the present invention is to provide a space-saving wrist for an industrial robot.

WO 2005/061189 A1



SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN,
GQ, GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Published:

- *with international search report*